

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) [[An]] A computer-readable information record medium comprising:

video information to indicate a main video when read from said computer-readable information record medium by a processor programmed to further display said main video;

sub-video information to indicate a sub-video, the sub-video at least partially displayable over the main video;

predetermined part coordinate information to designate coordinates of a predetermined part included in the sub-video, in a coordinate system defined with respect to the sub-video; and

sub-video control information including (i) coordinates-before-movement information to indicate coordinates of a sub-frame before a movement in the coordinate system, the sub-frame being at least an area of the sub-video, and (ii) coordinates-after-movement information to indicate coordinates of the sub frame after n-th movement (n is natural number equal to or more than 1) in the coordinate system,

one part of the sub-video which is cut-out by the sub-frame being displayed over the main video and other part of the sub-video which is not cutout by the sub-frame not being displayed.

2. (currently amended) The computer-readable information record medium according to claim 1, wherein the predetermined part is a button video part, and

the predetermined part coordinate information is button position information to indicate coordinates of the button video part.

3. (currently amended) The computer-readable information record medium according to claim 2, wherein the sub-video control information further includes first button status information to indicate in which status a button, which is indicated by the button video part before the movement of the sub-frame, is among predetermined kinds of preset button status.

4. (currently amended) The computer-readable information record medium according to claim 3, wherein the sub-video control information further includes second button status information to indicate in which status a button, which is indicated by the button video part after the n-th movement of the sub-frame, is among the predetermined kinds of preset button status.

5. (currently amended) The computer-readable information record medium according to claim 2, wherein the sub-video control information further includes button command information to define a button command to be executed in a case that the button is operated.

6. (currently amended) The computer-readable information record medium according to claim 2, further comprising:

high light information to define how to control a high light display for the button video part.

7. (currently amended) The computer-readable information record medium according to claim 6, wherein the high light information to define how to control the high light display defines which display mode is used to perform the high light display among predetermined kinds of preset display mode, depending on the button status among predetermined kinds of preset button status of a button displayed on the main video.

8. (currently amended) The computer-readable information record medium according to claim 1, wherein a sub-video information set comprises the sub-video information and the predetermined part coordinate information, and

the main video information, the sub-video information set and the sub-video control information are divided into predetermined packets and multiplexed, and further streamed into a video stream comprising the divided main video, a sub-video stream comprising the divided sub-video information set and a control information stream comprising the divided sub-video control information.

9. (currently amended) An information record apparatus comprising:

a first record device for recording video information to indicate a main video;

a second record device for recording sub-video information to indicate a sub-video, the sub-video at least partially displayable over the main video, and predetermined part coordinate information to designate coordinates of a predetermined part included in the sub-video, in a coordinate system defined with respect to the sub-video; and

a third record device for recording sub-video control information including (i) coordinates-before-movement information to indicate coordinates of a sub-frame before a movement in the coordinate system, the sub-frame being at least an area of the sub-video, and (ii) coordinates-after-movement information to indicate coordinates of the sub frame after n-th movement (n is natural number equal to or more than 1) in the coordinate system,

one part of the sub-video which is cut-out by the sub-frame being displayed over the main video and other part of the sub-video which is not cutout by the sub-frame not being displayed.

10. (currently amended) An information record method comprising:

a first record process of recording video information to indicate a main video;

a second record process of recording sub-video information to indicate a sub-video, the sub-video at least partially displayable over the main video, and predetermined part coordinate information to designate coordinates of a predetermined part included in the sub-video, in a coordinate system defined with respect to the sub-video; and

a third record process of recording sub-video control information including (i) coordinates-before-movement information to indicate coordinates of a sub-frame before a movement in the coordinate system, the sub-frame being at least an area of the sub-video, and (ii) coordinates-after-movement information to indicate coordinates of the sub frame after n-th movement (n is natural number equal to or more than 1) in the coordinate system,

one part of the sub-video which is cut-out by the sub-frame being displayed over the main video and other part of the sub-video which is not cut-out by the sub-frame not being displayed.

11. (original) An information reproduction apparatus for reproducing the information record medium according to claim 1, said apparatus comprising:

a reproduction device for reproducing the video information, the sub-video information, the predetermined part coordinate information and the sub-video control information;

a display output device capable of displaying the reproduced sub-video information over the reproduced video information;

a control device for controlling the reproduction device and the display output device to display, before the movement of the sub-frame, the predetermined part within the sub-frame before the movement after the predetermined part is subjected to a predetermined kind of processing on the basis of the reproduced predetermined part coordinate information, while displaying the sub-frame before the movement over the main video on the basis of the coordinates-before-movement information included in the reproduced sub video control information, and to display, after the movement of the sub-frame, the predetermined part within the sub-frame after the movement after the predetermined part is subjected to a predetermined kind of processing on the basis of the reproduced predetermined part coordinate information, while displaying the sub-frame after the movement over the main video on the basis of the coordinates-after-movement information included in the reproduced sub-video control information.

12. (original) The information reproduction apparatus according to claim 11, wherein the predetermined part is a button video part,

the predetermined part coordinate information is button position information to indicate coordinates of the button video part,

the information record medium further comprises high light information to define how to control a high light display for the button video part,

the reproduction device further reproduces the high light information, and

the control device controls the reproduction device and the display output device to perform the high light display as the predetermined kind of processing for the button video part, on the basis of the reproduced high light information.

13. (original) An information reproduction method of reproducing the information record medium according to claim 1, implemented with an information reproduction apparatus comprising (i) a reproduction device for reproducing the video information, the sub-video information, the predetermined part coordinate information and the sub-video control information and (ii) a display output device capable of displaying the reproduced sub-video information over the reproduced video information, said method comprising:



a first control process of controlling the reproduction device and the display output device to display, before the movement of the sub-frame, the predetermined part within the sub-frame before the movement after the predetermined part is subjected to a predetermined kind of processing on the basis of the reproduced predetermined part coordinate information, while displaying the sub-frame before the movement over the main video on the basis of the coordinates-before-movement information included in the reproduced sub video control information; and

a second control process of controlling the reproduction device and the display output device to display, after the movement of the sub-frame, the predetermined part within the sub-frame after the movement after the predetermined part is subjected to a predetermined kind of processing on the basis of the reproduced predetermined part coordinate information, while displaying the sub-frame after the movement over the main video on the basis of the coordinates-after-movement information included in the reproduced sub-video control information.

14. (currently amended) An information record reproduction apparatus comprising:

a first record device for recording video information to indicate a main video;

a second record device for recording sub-video information to indicate a sub-video, the sub-video at least partially displayable over the main video, and predetermined part coordinate information to designate coordinates of a predetermined part included in the sub-video, in a coordinate system defined with respect to the sub-video;

a third record device for recording sub-video control information including (i) coordinates-before-movement information to indicate coordinates of a sub-frame before a movement in the coordinate system, the sub-frame being at least an area of the sub-video, and (ii) coordinates-after-movement information to indicate coordinates of the sub frame after n-th movement (n is natural number equal to or more than 1) in the coordinate system;

a reproduction device for reproducing the video information, the sub-video information, the predetermined part coordinate information and the sub-video control information;

a display output device capable of displaying the reproduced sub-video information over the reproduced video information; and

a control device for controlling the reproduction device and the display output device to display, before the movement of the sub-frame, the predetermined part within the sub-frame before the movement after the predetermined part is subjected to a predetermined kind of processing on the basis of the reproduced predetermined part coordinate information, while displaying the sub-frame before the movement over the main video on the basis of the coordinates-before-movement information included in the reproduced sub video control information, and to display, after the movement of the sub-frame, the predetermined part within the sub-frame after the movement after the predetermined part is subjected to a predetermined kind of processing on the basis of the reproduced predetermined part coordinate information, while displaying the sub-frame after the movement over the main video on the basis of the coordinates-after-movement information included in the reproduced sub-video control information,

one part of the sub-video which is cut-out by the sub-frame being displayed over the main video and other part of the sub-video which is not cut-out by the sub-frame not being displayed.

15. (currently amended) An information record reproduction method implemented with an information record reproduction apparatus comprising (i) a reproduction device for reproducing the video information, the sub-video information, the predetermined part coordinate information and the sub-video control information and (ii) a display output device capable of displaying the reproduced sub-video information over the reproduced video information, said method comprising:

a first record process of recording video information to indicate a main video;

a second record process of recording sub-video information to indicate a sub-video, the sub-video at least partially displayable over the main video, and predetermined part coordinate information to designate coordinates of a predetermined part included in the sub-video, in a coordinate system defined with respect to the sub-video;

a third record process of recording sub-video control information including (i) coordinates-before-movement information to indicate coordinates of a sub-frame before a movement in the coordinate system, the sub-frame being at least an area of the sub-video, and (ii) coordinates-after-movement information to indicate coordinates of the sub frame after n-th movement (n is natural number equal to or more than 1) in the coordinate system;

a first control process of controlling the reproduction device and the display output device to display, before the movement of the sub-frame, the predetermined part within the sub-frame before the movement after the predetermined part is subjected to a predetermined kind of processing on the basis of the reproduced predetermined part coordinate information, while displaying the sub-frame before the movement over the main video on the basis of the coordinates-before-movement information included in the reproduced sub video control information; and

a second control process of controlling the reproduction device and the display output device to display, after the movement of the sub-frame, the predetermined part within the sub-frame after the movement after the predetermined part is subjected to a predetermined kind of processing on the basis of the reproduced predetermined part coordinate information, while displaying the sub-frame after the movement over the main video on the basis of the coordinates-after-movement information included in the reproduced sub-video control information,

one part of the sub-video which is cut-out by the sub-frame being displayed over the main video and other part of the sub-video which is not cut-out by the sub-frame not being displayed.

16. (currently amended) A computer-readable recording medium encoded with a computer program for a record control to control a computer disposed at the information record apparatus according to claim 9, said program making the computer function as at least a part of the first record device, the second record device and the third record device.

17. (currently amended) A computer-readable recording medium encoded with a computer program for a reproduction control to control a computer disposed at the information reproduction apparatus according to claim 11, said program making the computer function as at least a part of the reproduction device, the display output device and the control device.

18. (currently amended) A computer-readable recording medium encoded with a computer program for a record reproduction control to control a computer disposed at the information record reproduction apparatus according to claim 14, said program making the computer function as at least a part of the first record device, the second record device, the third record device, the reproduction device, the display output device and the control device.

19. (currently amended) A computer-readable medium encoded with a data structure including a control signal, said structure comprising:

video information to indicate a main video when read from said computer-readable medium by a processor programmed to process said data structure;

sub-video information to indicate a sub-video, the sub-video at least partially displayable over the main video;

predetermined part coordinate information to designate coordinates of a predetermined part included in the sub-video, in a coordinate system defined with respect to the sub-video; and

sub-video control information including (i) coordinates-before-movement information to indicate coordinates of a sub-frame before a movement in the coordinate system, the sub-frame being at least an area of the sub-video, and (ii) coordinates-after-movement information to indicate coordinates of the sub frame after n-th movement (n is natural number equal to or more than 1) in the coordinate system,

one part of the sub-video which is cut-out by the sub-frame being displayed over the main video and other part of the sub-video which is not cut-out by the sub-frame not being displayed.